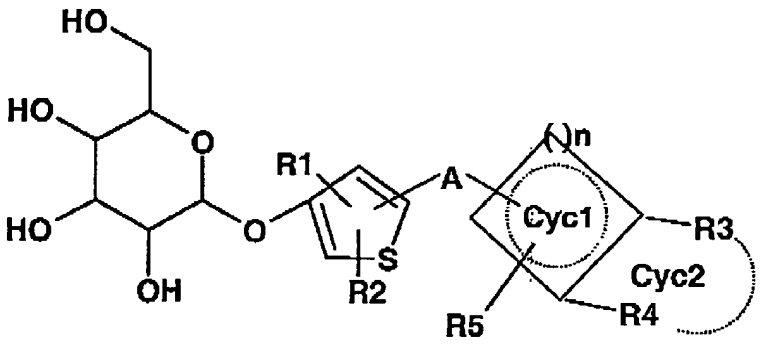
DEAV2002/0049 US NP

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound of the formula I



I

wherein

~~R1, R2~~ ~~are, independently of each other, hydrogen, F, Cl, Br, I, OH, NO_2, CN, COOH, $CO(C_1$-$C_6)$ alkyl, $COO(C_1$-$C_6)$ alkyl, $CONH_2$, $CONH(C_1$-$C_6)$ alkyl, $CON[(C_1$-$C_6)$ alkyl$]_2$, $(C_1$-$C_6)$ alkyl, $(C_2$-$C_6)$ alkenyl, $(C_2$-$C_6)$ alkynyl, $(C_1$-$C_6)$ alkoxy, HO-$(C_1$-$C_8)$ alkyl, $(C_1$-$C_6)$ alkoxy-$(C_1$-$C_6)$ alkyl, phenyl, benzyl, or $(C_1$-$C_4)$ alkylcarbonyl,~~

~~wherein one, more than one or all hydrogens in the alkyl or alkoxy radicals are optionally replaced by fluorine;~~

~~SO_2NH_2, $SO_2NH(C_1$-$C_6)$ alkyl, $SO_2N[(C_1$-$C_6)$ alkyl$]_2$, S-$(C_1$-$C_6)$-alkyl, S-$(CH_2)_o$-phenyl, SO-$(C_1$-$C_6)$-alkyl, SO-$(CH_2)_o$-phenyl, SO_2-$(C_1$-$C_6)$-alkyl, or SO_2-$(CH_2)_o$-phenyl,~~

~~wherein o is 0-6 and wherein the phenyl radical is optionally substituted up to twice, each substituent chosen independently from F, Cl, Br, OH, CF_3, NO_2, CN, OCF_3, $(C_1$-$C_6)$ alkoxy, $(C_1$-$C_6)$ alkyl, and NH_2;~~

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~~NH_2, NH (C_1-C_6)-alkyl, N((C_1-C_6)-alkyl)$_2$, NH(C_1-C_7)-acyl, phenyl, or O-(CH_2)$_o$-phenyl,~~

~~wherein o is 0-6 and wherein the phenyl ring is optionally substituted one to 3 times, each substituent chosen independently from F, Cl, Br, I, OH, CF_3, NO_2, CN, OCF_3, (C_1-C_6)-alkoxy, (C_1-C_6)-alkyl, NH_2, NH(C_1-C_6)-alkyl, N((C_1-C_6)-alkyl)$_2$, SO_2CH_3, COOH, COO-(C_1-C_6)-alkyl, and $CONH_2$;~~

R1 is hydrogen, CF_3, (C_1-C_4)-alkyl, or phenyl;

R2 is hydrogen;

A is –CH=CH-CH_2- or (C_1-C_4)-alkanediyl, wherein one or two CH_2 groups are optionally replaced by -(C=O)-, -CH=CH-, -CH(OH)-, -NH-, -CHF-, -CF_2-, or -O-;

n is a number 2 or 3;

Cyc1 is a 5- to 6-membered unsaturated ring, wherein 1 carbon atom is optionally replaced by O or S;

R3, R4, R5 are, independently of each other, hydrogen, F, Cl, Br, I, OH, NO_2, CN, COOH, COO(C_1-C_6)-alkyl, CO(C_1-C_4)-alkyl, $CONH_2$, CONH(C_1-C_6)-alkyl, CON[(C_1-C_6)-alkyl]$_2$, (C_1-C_8)-alkyl, (C_2-C_6)-alkenyl, (C_2-C_6)-alkynyl, (C_1-C_{12})-alkoxy, HO-(C_1-C_6)-alkyl, or (C_1-C_6)-alkoxy-(C_1-C_6)-alkyl,

wherein one, more than one or all hydrogens in the alkyl and alkoxy radicals are optionally replaced by fluorine;

SO_2-NH_2, SO_2NH(C_1-C_6)-alkyl, SO_2N[(C_1-C_6)-alkyl]$_2$, S-(C_1-C_6)-alkyl, S-(CH_2)$_o$-phenyl, SO-(C_1-C_6)-alkyl, SO-(CH_2)$_o$-phenyl, SO_2-(C_1-C_6)-alkyl, or SO_2-(CH_2)$_o$-phenyl,

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wherein o is 0-6 and wherein the phenyl radical is optionally substituted up to twice, each substituent chosen independently from F, Cl, Br, OH, CF_3, NO_2, CN, OCF_3, (C_1-C_6)-alkoxy, (C_1-C_6)-alkyl, and NH_2;

NH_2, NH-(C_1-C_6)-alkyl, N$((C_1-C_6)$-alkyl$)_2$, NH(C_1-C_7)-acyl, phenyl, $(CH_2)_o$-phenyl, O-$(CH_2)_o$-phenyl,

wherein o is 0-6 and wherein the phenyl ring is optionally substituted one to 3 times, each substituent chosen independently from F, Cl, Br, I, OH, CF_3, NO_2, CN, OCF_3, (C_1-C_8)-alkoxy, (C_1-C_6)-alkyl, NH_2, NH(C_1-C_6)-alkyl, N$((C_1-C_6)$-alkyl$)_2$, SO_2-CH_3, COOH, COO-(C_1-C_6)-alkyl, and $CONH_2$;

or

R3 and R4 together with the carbon atoms carrying them are a 5- to 7-membered, saturated, partially or completely unsaturated ring Cyc2,

wherein 1 or 2 carbon atoms in the ring are optionally replaced by N, O or S, and

wherein Cyc2 is optionally substituted by (C_1-C_6)-alkyl, (C_2-C_5)-alkenyl, (C_2-C_5)-alkynyl,

wherein, in each substituent of Cyc2, one CH_2 group is optionally replaced by O, or substituted by H, F, Cl, OH, CF_3, NO_2, CN, COO(C_1-C_4)-alkyl, $CONH_2$, CONH(C_1-C_4)-alkyl, or OCF_3; and

R5 is hydrogen;

or a pharmaceutically acceptable salt, solvate, prodrug derivative, ester derivative, polymorphous form, racemate, racemic mixture, pure enantiomer, diastereomer or mixtures thereof.

2. (Previously Presented) The compound of claim 1, wherein A is linked to the thienyl ring in position 2.

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3. (Currently Amended) The compound of claim 1, wherein

~~R1, R2 are, independently of each other, hydrogen, F, Cl, Br, I, OH, NO_2, CN, COOH, $CO(C_1-C_6)$ alkyl, $COO(C_1-C_6)$ alkyl, $CONH_2$, $CONH(C_1-C_6)$ alkyl, $CON[(C_1-C_6)\text{ alkyl}]_2$, (C_1-C_8) alkyl, (C_2-C_6) alkenyl, (C_2-C_6) alkynyl, (C_1-C_6) alkoxy, HO-(C_1-C_6) alkyl, (C_1-C_6)-alkoxy-(C_1-C_6) alkyl, phenyl, benzyl, (C_1-C_4)-alkylcarbonyl, or SO-(C_1-C_6) alkyl,~~

~~wherein one, more than one or all hydrogens in the alkyl or alkoxy radicals are optionally replaced by fluorine;~~

R3, R4, R5 are, independently of each other, hydrogen, F, Cl, Br, I, OH, NO_2, CN, COOH, $COO(C_1-C_6)$-alkyl, $CO(C_1-C_4)$-alkyl, $CONH_2$, $CONH(C_1-C_6)$-alkyl, $CON[(C_1-C_6)\text{-alkyl}]_2$, (C_1-C_8)-alkyl, (C_2-C_6)-alkenyl, (C_2-C_6)-alkynyl, (C_1-C_{12})-alkoxy, HO-(C_1-C_6)-alkyl, (C_1-C_6)-alkoxy-(C_1-C_6)-alkyl, (C_1-C_4)-alkylphenyl, (C_1-C_4)-alkoxyphenyl, S-(C_1-C_6)-alkyl, or SO-(C_1-C_6)-alkyl,

wherein one, more than one or all hydrogens in the alkyl or alkoxy radicals are optionally replaced by fluorine;

or

R3 and R4 together with the carbon atoms carrying them are a 5- to 7-membered, saturated, partially or completely unsaturated ring Cyc2,

wherein 1 or 2 carbon atoms in the ring are optionally replaced by N, O or S, and

wherein Cyc2 is optionally substituted by (C_1-C_6)-alkyl, (C_2-C_5)-alkenyl, or (C_2-C_5)-alkynyl,

wherein in each substituent of Cyc2,one CH_2 group is optionally replaced by O, or substituted by H, F, Cl, OH, CF_3, NO_2, CN, $COO(C_1-C_4)$-alkyl, $CONH_2$, $CONH(C_1-C_4)$-alkyl, or OCF_3, and

R5 is hydrogen.

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4. (Currently Amended) The compound of claim 1, wherein

~~R1, R2 are, independently of each other, hydrogen, $(C_1$-$C_6)$ alkyl, $(C_1$-$C_4)$ alkoxy, HO-$(C_1$-$C_4)$ alkyl, $(C_1$-$C_4)$ alkoxy-$(C_1$-$C_4)$ alkyl, F, Cl, CF_3, OCF_3, OCH_2CF_3, $(C_1$-$C_4)$ alkyl-CF_2-, phenyl, benzyl, $(C_1$-$C_4)$ alkylcarbonyl, $(C_2$-$C_4)$ alkenyl, $(C_2$-$C_4)$ alkynyl, or COO$(C_1$-$C_4)$ alkyl;~~

R3, R4, R5 are, independently of each other, hydrogen, F, Cl, Br, I, NO_2, OH, CN, $(C_1$-$C_6)$-alkyl, $(C_1$-$C_8)$-alkoxy, OCF_3, OCH_2CF_3, S-$(C_1$-$C_4)$-alkyl, COOH, HO-$(C_1$-$C_4)$-alkyl, $(C_1$-$C_4)$-alkoxy-$(C_1$-$C_4)$-alkyl, $(C_1$-$C_2)$-alkylphenyl, or $(C_1$-$C_2)$-alkoxyphenyl, or

R3 and R4 together are -CH=CH-O-, -CH=CH-S-, -O-$(CH_2)_p$-O-, -O-CF_2-O-, or -CH=CH-CH=CH-, wherein p = 1 or 2, and

R5 is hydrogen.

5. (Canceled)

6. (Currently Amended) The compound of claim 1, wherein

~~R1 is hydrogen, CF_3, $(C_1$-$C_4)$ alkyl, or phenyl,~~

~~R2 is hydrogen,~~

A is $-CH_2-$, $-C_2H_4-$, $-C_3H_6$, -CH(OH)-, –(C=O)-, -CH=CH-, -CH=CH-CH_2-, -CO-CH_2-CH_2- or –CO-NH-CH_2-;

Cyc1 is a 5- to 6-membered unsaturated ring, wherein 1 carbon atom is optionally replaced by S;

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R3, R4, and R5 are, independently of each other, hydrogen, F, Cl, I, NO_2, OH, CN, $(C_1$-$C_6)$-alkyl, $(C_1$-$C_8)$-alkoxy, O-CH_2-phenyl, OCF_3, S-CH_3, or COOH or

R3 and R4 together are -CH=CH-O-, -O-$(CH_2)_p$-O-, -O-CF_2-O-, -CH=CH-CH=CH-, wherein p = 1 or 2, and

R5 is hydrogen.

7. (Previously Presented) The compound of claim 1, wherein A is -CH_2- or –CH_2-CH_2-.

8. (Previously Presented) The compound of claim 1, wherein Cyc1 is phenyl.

9. (Previously Presented) The compound of claim 1, wherein Cyc1 is thienyl.

10. (Previously Presented) The compound of claim 1, wherein Cyc1 is monosubstituted.

11. (Previously Presented) A medicament comprising at least one compound as claimed in claim 1 and a pharmaceutically acceptable carrier.

12. (Original) A medicament comprising at least one compound as claimed in claim 1 and at least one more blood glucose-lowering active ingredient.

13. (Original) A method for treating type 1 or type 2 diabetes, comprising administering to a patient in need thereof an effective amount of at least one compound as claimed in claim 1.

14. (Original) A method for lowering blood glucose, comprising administering to a patient in need thereof an effective amount of at least one compound as claimed in claim 1.

15. (Original) A method for treating type 1 or type 2 diabetes, comprising administering to a patient in need thereof an effective amount of at least one compound as claimed in

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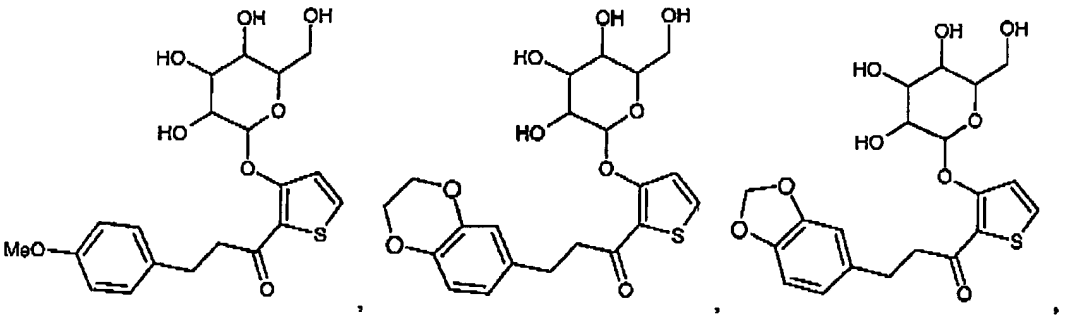
claim 1 and at least one other active ingredient, wherein the at least one other active ingredient is effective for lowering blood glucose.

16. (Original) A method for lowering blood glucose, comprising administering to a patient in need thereof an effective amount of at least one compound as claimed in claim 1 and at least one other active ingredient, wherein the at least one other active ingredient is effective for lowering blood glucose.

17. (Original) A process for producing a medicament comprising at least one compound as claimed in claim 1, comprising:
mixing the at least one compound as claimed in claim 1 with a pharmaceutically suitable carrier, and
converting this mixture into a form suitable for administration.

18. (Previously Presented) A compound according to claim 1 wherein said compound is in the β-D-gluco form.

19. (Previously Presented) A compound of claim 18 selected from the group consisting of:



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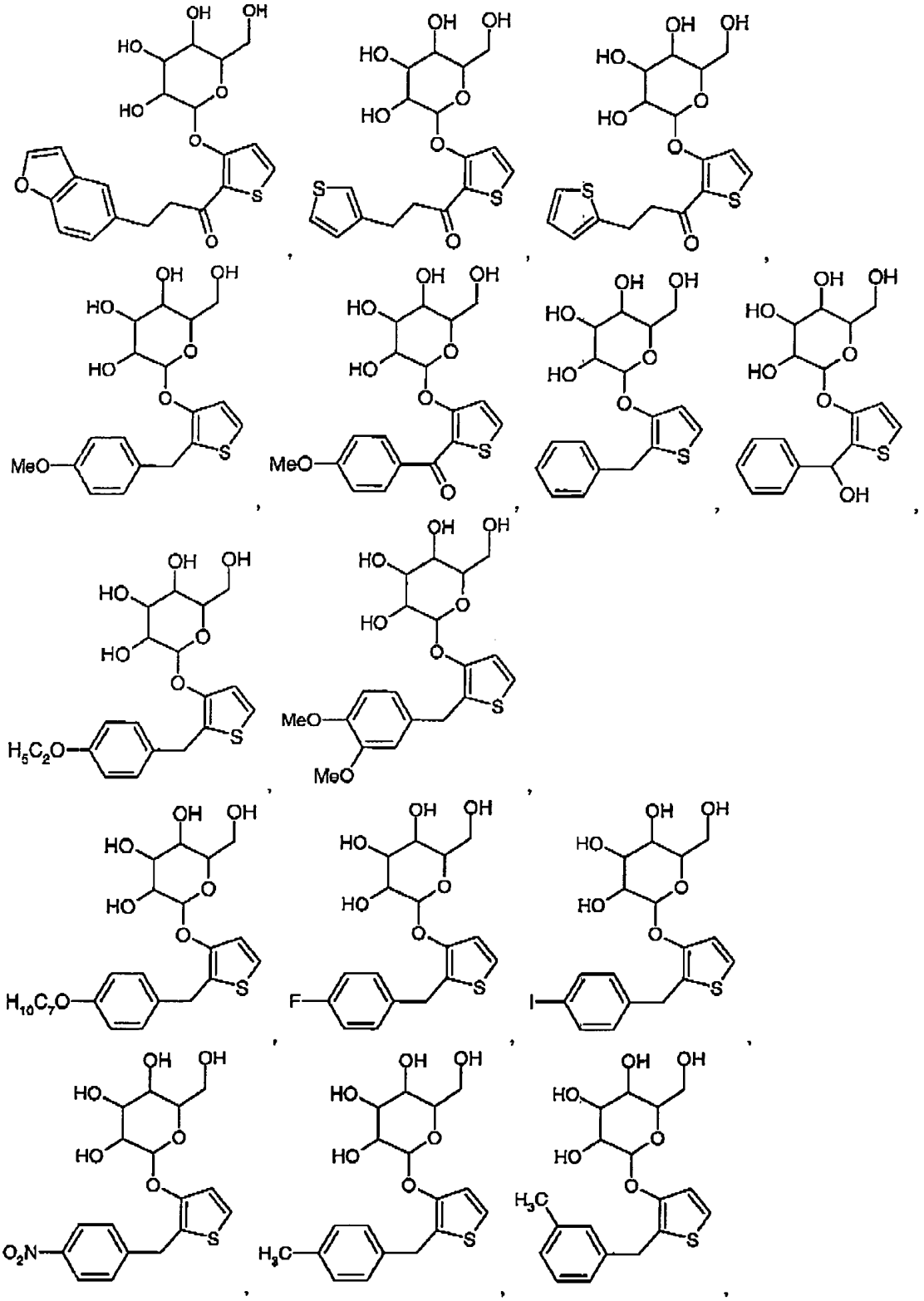

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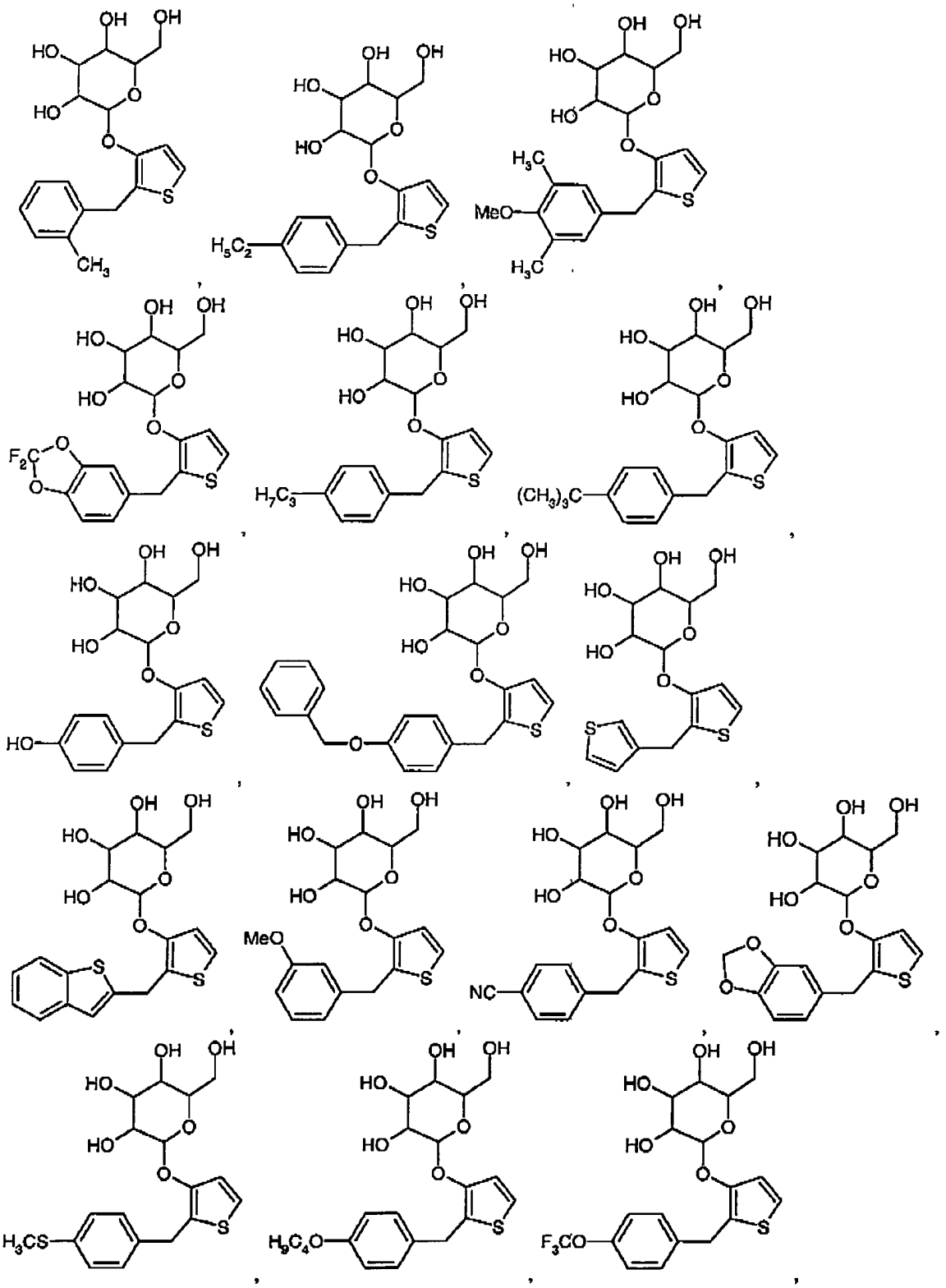

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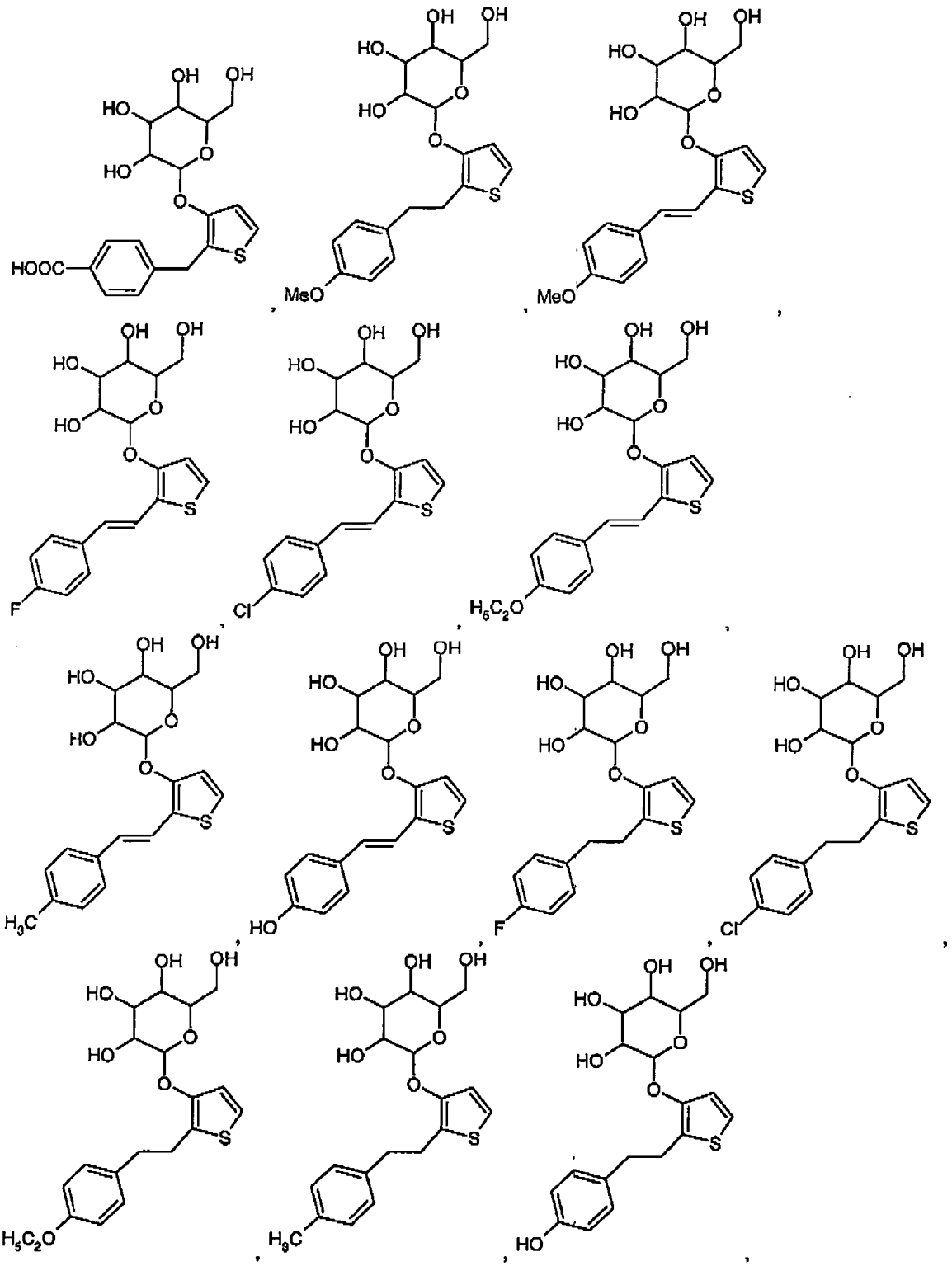

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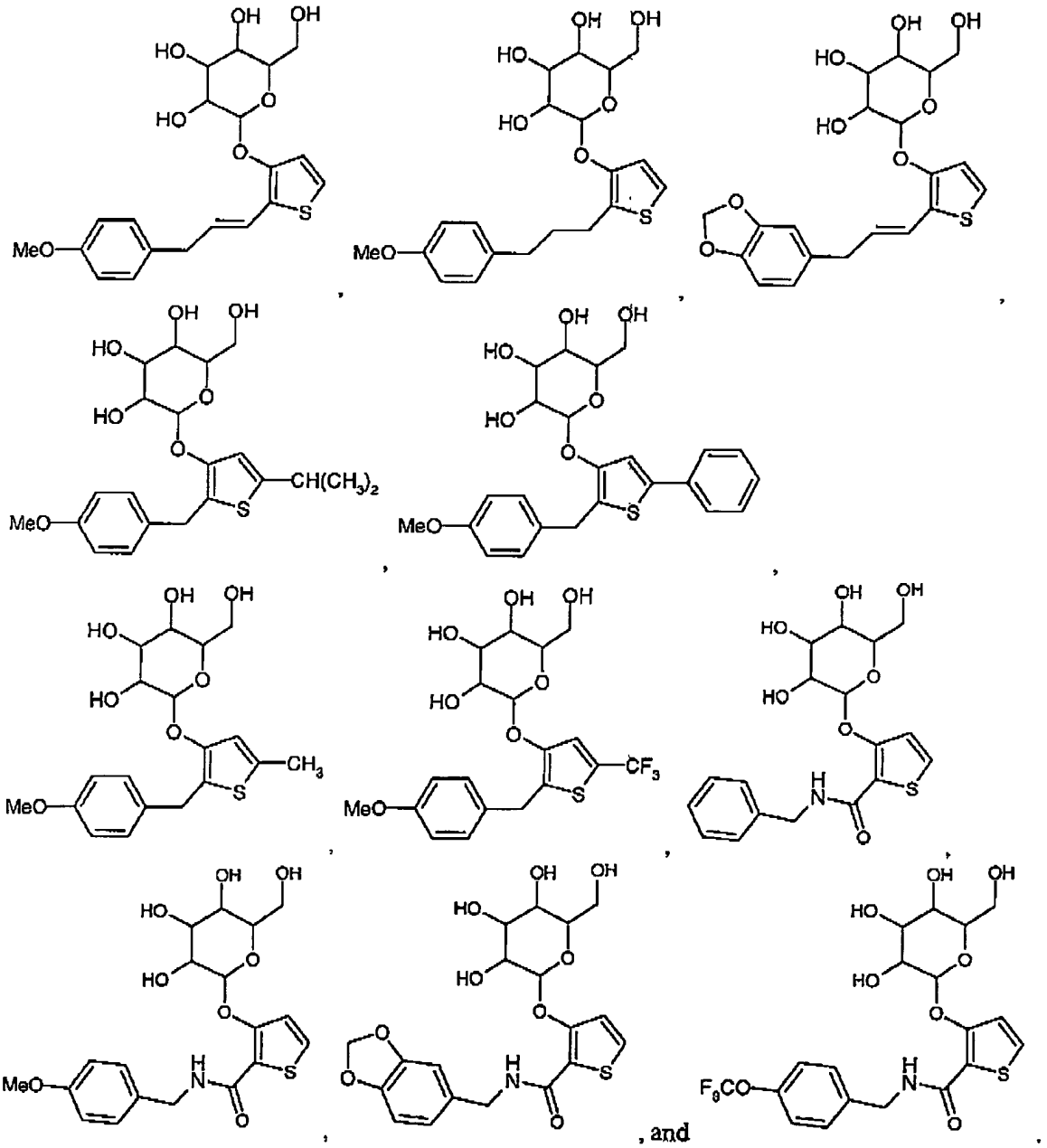

, and

20. (Previously Presented) The compound according to claim 19 selected from the group consisting of:

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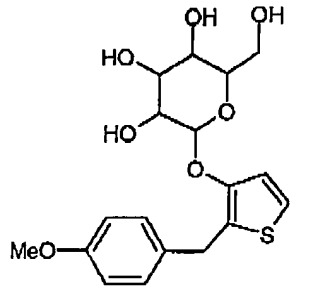

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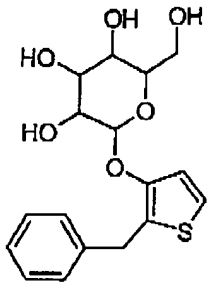

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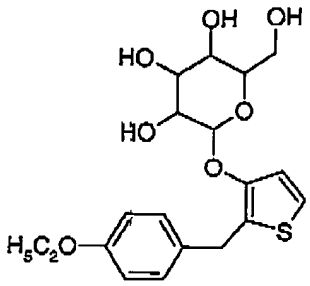

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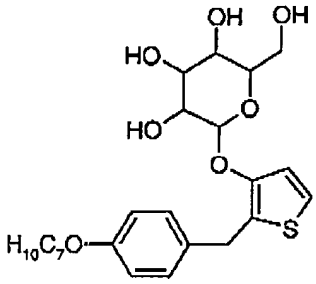

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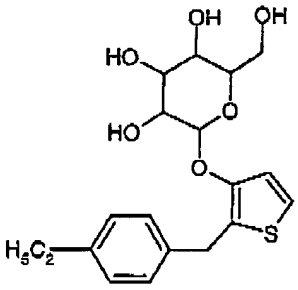

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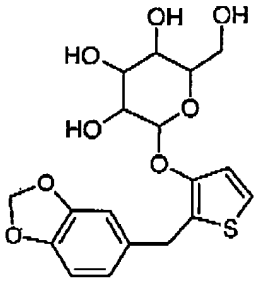

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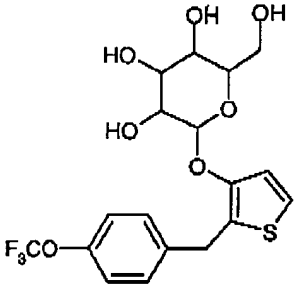

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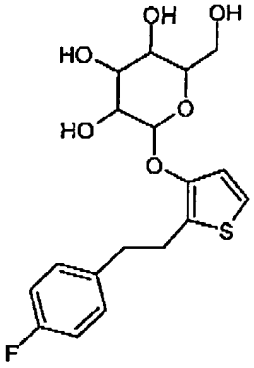

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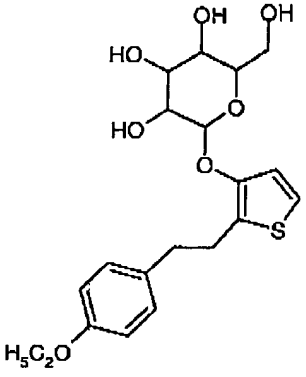

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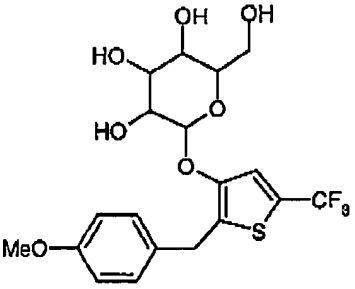

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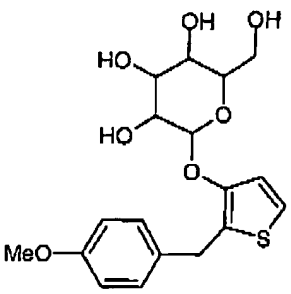
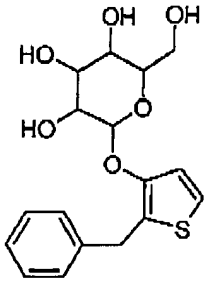
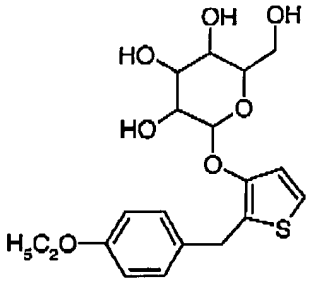
21. (Previously Presented) A compound according to claim 20, wherein the compound is



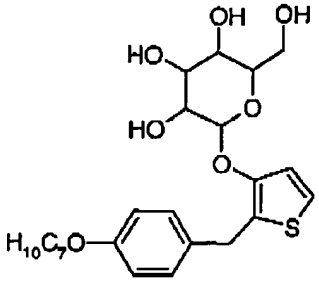
22. (Previously Presented) A compound according to claim 20, wherein the compound is



23. (Previously Presented) A compound according to claim 20, wherein the compound is



24. (Previously Presented) A compound according to claim 20, wherein the compound is



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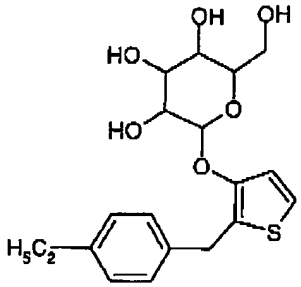
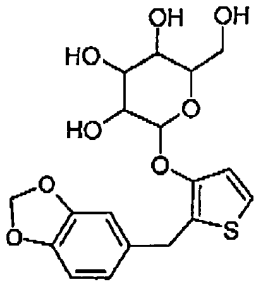
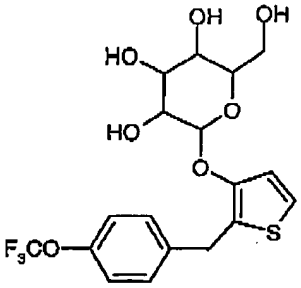
25. (Previously Presented) A compound according to claim 20, wherein the compound is



26. (Previously Presented) A compound according to claim 20, wherein the compound is



27. (Previously Presented) A compound according to claim 20, wherein the compound is



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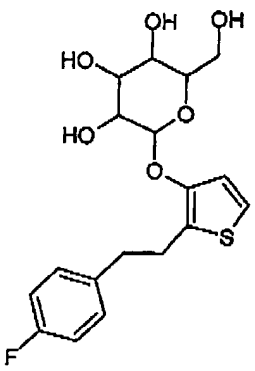
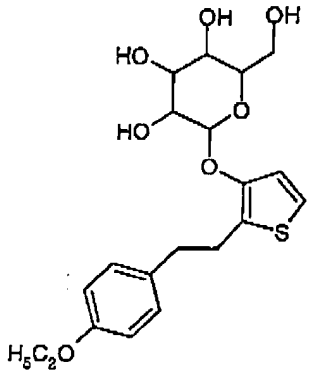
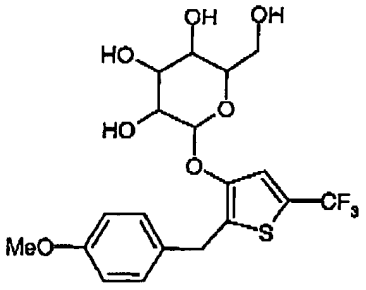
28. (Previously Presented) A compound according to claim 20, wherein the compound is



29. (Previously Presented) A compound according to claim 20, wherein the compound is



30. (Previously Presented) A compound according to claim 20, wherein the compound is



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